

REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application. Claims 1-3 and 5-8 are now present in the application. Claim 1 is independent.

Favorable reconsideration and allowance of this application, as amended, is respectfully requested in view of the following remarks.

Claim Rejections – 35 U.S.C. § 112, 2nd paragraph

Claim 8 has been amended to correct the antecedent basis noted by the Examiner. Reconsideration and withdrawal of the rejection is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 3 and 5-8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 5,725,209 to Takahashi et al. ("Takahashi") in view of Japanese Publication No. 9-39467, which the Examiner terms "JP'467". Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness and respectfully traverses the rejection.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. § 103(a), the cited references must teach or suggest each and every element in the claims. See *M.P.E.P.* § 706.02(j); *M.P.E.P.* 2141-2144.

Independent claim 1 recites a sheet feeder, the sheet feeder comprises a sheet accommodating section, a sheet pickup section, and a sheet separator including a feed roller and reverse roller, and the reverse roller includes a sponge member having an outer periphery formed with a coating layer having a surface smoothed to have a gloss and a mean surface roughness Ra satisfying the formula: $0.09 \leq Ra \leq 0.11$. It is aimed at preventing the occurrence of the image trailing phenomenon wherein an image written in pencil or an image with a low fixing property degrades the image formed on the sheets due to the sheet surface being stained or the image being made unclear.

The Examiner states that Takahashi shows everything but the specific mean surface roughness and that JP'467 teaches a surface roughness of $0.09 \leq Ra \leq 0.11$. To the contrary, Takahashi does not show the reverse roller sponge member coating layer surface smoothed "to have a gloss" as claimed. Takahashi merely shows basic roller construction. Takahashi prefers the coating resin material to be "worked to form indentations 206" rather than a gloss. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be suggested or taught by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1970). All words in a claim must be considered in judging the patentability of that claim against the prior art. In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). The claimed reverse roller sponge member coating layer surface smoothed "to have a gloss" is not shown by the reference and has not been properly addressed in the rejection.

Moreover, JP'467 is totally unrelated to a surface coating on a reverse roller sponge member and only discloses that the embossed patterns on a writing utensil, cosmetic utensil or electronic input pen have a roughness of $0.01\text{-}3\mu\text{m}$. It is not clear from the rejection as to what the connection would be between a writing utensil and a sheet feed reverse roller. These references cannot be combined, and even if they were combined, they would not teach the embodiment of claims 1, 3 and 5-8. The range of roughness of $0.01\text{-}3\mu\text{m}$ is about 150 times wider than the claimed acceptable range and therefore does not meet the standard for obviousness established by *MPEP* § 2144.05 *Obviousness of Ranges*. Here, it is submitted that only Applicant has recognized that this particular range produces the desired outcome in this particular environment. Therefore, at least because Takahashi and JP'467 fail to show or suggest all of the features of claim 1, it is submitted that claim 1 is patentable over these references, and dependent claims 3 and 5-8 are also patentable at least for the same reasons as claim 1.

Claims 1 and 5-8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Takahashi in view of U.S. Patent No. 6,030,328 to Watanabe et al. ("Watanabe"). Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness and respectfully traverses the rejection.

The rejection based on Takahashi and Watanabe suffers from the same deficiency of Takahashi noted above and because Watanabe is for a high nip pressure calendering roll having a

surface roughness of less than 0.5 μ m, preferably less than 0.2 μ m and desirably less than 0.1 μ m. These references cannot be combined, and even if they were combined, they would not teach the embodiment of claims 1 and 5-8. The claimed reverse roller sponge member coating layer surface smoothed "to have a gloss" is not shown by the reference and has not been properly addressed in the rejection.

Moreover, Watanabe is for a high nip pressure calendering roll having a surface roughness of less than 0.5 μ m, preferably less than 0.2 μ m and desirably less than 0.1 μ m. Watanabe wants the roll surface to be as smooth as possible because it is used to smooth the metal oxide layer on recording tape. Once again, Watanabe does not set a lower limit for the surface smoothness and the wide range of acceptable roughness is so far in excess of the claimed acceptable range as to not meet the standard for obviousness discussed above. Here, it is submitted that only Applicant has recognized that this particular range produces the desired outcome in this particular environment. Therefore, at least because Takahashi and Watanabe fail to show or suggest all of the features of claim 1, it is submitted that claim 1 is patentable over these references, and dependent claims 5-8 are also patentable at least for the same reasons as claim 1.

Claims 1 and 5-8 stand rejected 35 U.S.C. § 103(a) as allegedly being unpatentable over Takahashi in view of U.S. Patent No. 5,722,026 to Goto et al. ("Goto"). Applicant submits that the Examiner has failed to establish a *prima facie* case of obviousness and respectfully traverses the rejection.

The rejection based on Takahashi and Goto suffers from the same deficiency of Takahashi noted above and because Goto is for a toner heat fixing roller having a surface roughness Ra in a range of 0.1 to 1 μ m. Heat fixing rollers operate under high pressure and high temperature to fix a recording material to a sheet substrate, not to gently return a misfed sheet to a pickup section. Like the other proposed combinations discussed above, the Examiner has laid out no factual analysis that establishes why one working in the art of sheet pickup sections would turn to the art of fixing printing material such as ink or toner under high heat and pressure for solutions to problems. These references cannot be combined, and even if they were combined they would not teach the embodiment of claims 1 and 5-8. The claimed reverse roller sponge

member coating layer surface smoothed "to have a gloss" is not shown by the reference and has not been properly addressed in the rejection. Therefore, at least because Takahashi and Goto fail to show or suggest all of the features of claim 1, it is submitted that claim 1 is patentable over these references, and dependent claims 5-8 are also patentable at least for the same reasons as claim 1.

With respect to the rejections of dependent claim 2, the Examiner optionally includes Kohler to the combination. Kohler relates to forming a rough surface to have a tread for gripping by means of coating. Kohler teaches away from having a gloss surface and teaches away from having a mean surface roughness as claimed. Therefore Kohler cannot remedy the defects of the combinations noted above.

In conclusion, Takahashi discloses a basic construction of a reverse roller 201, but it does not have a coating layer surface smoothed to a gloss and does not have a surface roughness of $0.09 \leq Ra \leq 0.11$. Neither Watanabe, Goto or Kohler have anything to do with reverse rollers, much less disclose that Ra of a reverse roller should be set within a range of $0.09 \leq Ra \leq 0.11$, and therefore none of these references can be combined with the roller of Takahashi in the manner proposed by the rejections of record for the reasons set forth above.

Accordingly, Applicant respectfully requests that the rejections under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated and rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Charles Gorenstein, Reg. No. 29,271 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§ 1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

By 
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